

REMARKS

The final Office action mailed on 13 August 2003 (Paper No. 7) has been carefully considered.

Claim 25 and 32 thru 38 are being amended. Thus, claims 1 thru 12, 15 and 17 thru 38 are pending in the application.

It should be noted that the claim amendments are merely for the purpose of correcting errors in the dependency of claims 32 thru 38, and for the purpose of making minor, narrowing amendments of claims 25 and 33. Thus, the subject matter presented in the claims as now amended has already been searched and considered by the Examiner. Accordingly, this Amendment After Final does not present "new issues" requiring further consideration or search. Therefore, if the Examiner maintains this final rejection, the Amendment After Final should be entered upon the filing of an Appeal Brief.

In paragraph 2 of the Office action, the Examiner objected to claim 38 for its dependency upon claim 30. Claims 32 thru 38 were erroneously recited as being dependent from claim 30. They should have been recited as being dependent from independent claim 31, and they are now so amended.

In paragraph 2 of the Office action, the Examiner rejected claims 1, 2, 4, 5, 10 and 31

under 35 U.S.C. §102 for alleged anticipation by Gorog *et al.*, U.S. Patent No. 6,300,712. In paragraph 4 of the Office action, the Examiner rejected claims 3, 6 thru 9, 23 thru 30 and 32 thru 38 under 35 U.S.C. §103 for alleged unpatentability over Gorog *et al.* '712. In paragraph 5 of the Office action, the Examiner rejected claims 11, 12, 15 and 17 thru 22 under 35 U.S.C. §103 for alleged unpatentability over Gorog *et al.* '712 in view of Yun, Korean Patent Application No. 1997-046531. For the reasons stated below, it is submitted that the invention recited in the claims, as now amended, is distinguishable from the prior art cited by the Examiner so as to preclude rejection under 35 U.S.C. §102 or §103.

Gorog *et al.* '712 discloses a color picture tube having improved shadow mask-frame assembly support. The shadow mask-frame assembly is mounted in a rectangular faceplate panel by means of springs 42 (*see* Figure 2) located at the four corners of the panel. The springs 42 have aperture engaging studs 34 located on the peripheral sidewall at the four corners. The panel includes additional studs 54 located on the peripheral sidewall near the center of at least one pair of approximately parallel sides of the panel. Brackets 50 are located on opposite sides of the shadow mask-frame assembly at the locations of the additional studs 54. The brackets includes slots 59 (*see* Figures 3 and 4), the slots 59 being open on the sides thereof facing the faceplate. The additional studs 54 are positioned within the slots 59.

The invention recited in independent claim 1 is distinguishable from Gorog *et al.* '712

on several grounds. In particular, Gorog *et al.* '712 does not disclose or suggest a rectangular rim formed on the mask frame and disposed in parallel with the tube axis, the rectangular rim having a flange vertically extending from a rear end of the rectangular rim toward the tube axis and perpendicular to the tube axis.

In the latter regard, in paragraph 2 of the final Office action, the Examiner states that Gorog *et al.* '712 “discloses an assembly for supporting a mask frame to a stud of a panel in a cathode ray tube (Figure 2)” (quoting from paragraph 2, lines 3-4 of the final Office action). The Examiner further alleges that the “mask frame has a rectangular rim in parallel with the tube axis and a flange vertically extending from a rear end of the rectangular rim” (quoting from paragraph 2, lines 4-6 of the final Office action). However, with respect to the latter statement, the Examiner only cites the very generalized arrangement shown in Figure 1, and does not cite reference numerals identifying the rectangular rim or the flange vertically extending from a rear end of the rectangular rim.

Dependent claim 10 provides a further basis for distinction over the prior art in that it recites “said skirt of said shadow mask being closer to said third plane of said stud than to said second plane of said connecting arm” (quoting from claim 10). In paragraph 2 of the final Office action, the Examiner alleges that Gorog *et al.* '712 “discloses that the skirt of the shadow mask is closer to the third plane of the stud than the second plane of the connecting arm (Figure 5)” (quoting from page 4, lines 5-6 of the final Office action). However, Figure

5 cited by the Examiner does not disclose the skirt of the shadow mask, and the Examiner has not cited any reference numeral in Figure 5 showing the skirt of the shadow mask. Earlier in paragraph 2 of the final Office action, the Examiner did refer to the shadow mask having a skirt fixed on the inside surface of a front end of the rectangular rim, citing Figure 1 of Gorog *et al.* '712 (*see* page 3, lines 6-7 of the final Office action). However, even if Figure 1 of Gorog *et al.* '712 discloses a skirt fixed on the inside surface of a front end of a rectangular rim, there is no disclosure in any of the figures of Gorog *et al.* '712, or in the text thereof, indicating or suggesting that the skirt of the shadow mask is closer to the third plane of the stud than to the second plane of the connecting arm, as recited in dependent claim 10.

On page 13 of the final Office action, the Examiner states that “[t]he third plane passes through the stud and the second plane passes through the connecting arm”, and that “[t]he skirt of the shadow mask is closer to the third plane than the second plane” (quoting from page 13, lines 6-8 of the final Office action). Since the Examiner refers to Figure 1 earlier in that paragraph, it is presumed that the Examiner is referring to Figure 1 in the quoted statement, but no connecting arm is shown in Figure 1, and the Examiner has not identified by reference numerals any of the elements recited in the quoted statement or in the claim.

Turning to consideration of independent claim 11, that claim recites that the connecting arm is wave shaped. In paragraph 5 of the final Office action, in connection with

the rejection under 35 U.S.C. §103 based on Gorog *et al.* '712 and Yun '531, the Examiner alleges that “the Gorog reference discloses the claimed invention except for the limitation of the connecting arm being wave shaped” (quoting from page 10, lines 9-10 of the final Office action). The Examiner then alleges that Yun '531 “teaches that various shapes can be used for the bracket assembly”, citing Figure 9 of Yun '531. However, Yun '531 does not contain Figure 9, and does not disclose or suggest a wave shaped bracket. Moreover, there is nothing in Gorog *et al.* '712, and the Examiner has not cited anything, which would lead one of ordinary skill in the art to seek the disclosure of Yun '531 and to modify the disclosure of Gorog *et al.* '712 in accordance therewith.

Dependent claim 21 (dependent from claim 11) provides further basis for distinguishing the invention from the prior art since it recites, in a manner similar to claim 1, that the mask frame includes a flange extending from a rear end of the rectangular rim toward the tube axis and disposed in the second plane of the connecting arm. Thus, the arguments above relative to independent claim 1 (specifically, the recitation of the flange therein) apply equally to dependent claim 21. Moreover, the prior art does not disclose or suggest, and the Examiner has not shown where the prior art discloses or suggests, provision of a mask frame which includes a flange which is disposed in the second plane of the connecting arm, as also recited in claim 21. In fact, on page 11 of the final Office action, the Examiner admits that the “Gorog reference does not disclose that the flange of the rectangular rim is disposed in the second plane of the connecting arm” quoting from page 11,

lines 19-20 of the final Office action).

Independent claim 23 is distinguishable from the prior art on the grounds that the prior art does not disclose or suggest a mask frame which includes a flange extending from a rear end of the rectangular rim toward the tube axis and disposed in the second plane of the connecting arm. That is to say, independent claim 23 is distinguishable from the prior art on the same basis as just discussed with respect to dependent claim 21.

Dependent claim 25 provides further bases for distinguishing the invention from the prior art since it recites the connecting arm as being one of U-shaped and wave shaped. As stated above, neither of these configurations is disclosed or suggested in Gorog *et al.* '712 or in Yun '531.

Independent claim 31 is distinguishable from the prior art because the prior art does not disclose or suggest a shadow mask having a skirt which is closer to the third plane of the stud than to the second plane of the connecting arm. As mentioned previously, whereas Figure 1 of Gorog *et al.* '712 might be said to disclose a skirt fixed on the inside surface of the rectangular rim of a mask frame, there is no disclosure or suggestion of the recited relationship between the skirt of the shadow mask, on the one hand, and the second plane of the connecting arm and the third plane of the stud, on the other hand. As mentioned previously, the Examiner alleges (on page 13 of the final Office action) that the second and

third planes of the connecting arm and the stud, respectively, are disclosed in Figure 1, but that figure does not disclose a connecting arm, and the Examiner has not identified by reference numbers the various elements recited in claim 31. Therefore, it cannot be said that Gorog *et al.* '712 discloses or suggests the invention recited in claim 31.

It should be noted that the latter argument also supports the proposition that dependent claim 22 (which is dependent from previously discussed independent claim 11) defines the invention in a manner distinguishable from the prior art. This is true because of the fact that dependent claim 22 also recites that the skirt of the shadow mask is closer to the third plane of the stud than to the second plane of the connecting arm, and such an arrangement or relationship is not disclosed or suggested in Gorog *et al.* '712.

Dependent claim 33 (dependent from claim 31) contains the same recitation as dependent claim 25, that is, it recites that the connecting arm is one of U-shaped and wave shaped. As previously argued with respect to dependent claim 25, this recitation distinguishes the invention recited in dependent claim 33 from the prior art in that the recitation involves a particular configuration of the connecting arm so as to provide the arrangement with an improved absorption and damping effect. Contrary to the statement by the Examiner in paragraph 4 of the Office action, the recited configuration is not disclosed or suggested in the cited prior art.

To summarize, the prior art cited by the Examiner does not disclose or suggest the invention as recited in independent claim 1, 11, 23 and 31 (and associated dependent claims) of this application. Furthermore, there is nothing within the "four corners" of the Gorog *et al.* '712 patent which would suggest to or motivate a person of ordinary skill in the art as to modification of the arrangement disclosed in Gorog *et al.* '712 so as to arrive at the present invention. Therefore, not only is a rejection under 35 U.S.C. §102 inappropriate, but also a rejection under 35 U.S.C. §103 is inappropriate.

In view of the above, it is submitted that the claims of this application are in condition for allowance, and early issuance thereof is solicited. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

No fee is incurred by this Amendment After Final.

Respectfully submitted,



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